

1. A DNA encoding a variant of the protein of SEQ ID NO:4, having substantially the same insecticidal activity as the protein of SEQ ID NO:4 or an insecticidally-effective fragment thereof, wherein said DNA comprises the nucleotide sequence of SEQ ID NO:2 from nucleotide position 198 to nucleotide position 1561, and the nucleotide sequence of SEQ ID NO:3 from nucleotide position 1 to nucleotide position 1145, or a degenerate DNA sequence thereof, wherein one or more amino acid codons have been replaced with others without changing the amino acid sequence of the protein.

2. A DNA encoding a protein with insecticidal activity against an insect selected from the group consisting of *Spodoptera exigua*, *Spodoptera littoralis*, *Spodoptera frugiperda*, *Agrotis ipsilon*, *Mamestra brassica*, *Heliothis virescens*, *Ostrinia nubilalis*, and *Plutella xylostella*, wherein said DNA comprises the nucleotide sequence of SEQ ID NO:2 from nucleotide position 198 to nucleotide position 1561 or a degenerate DNA sequence thereof wherein one or more amino acid codons have been replaced with others without changing the amino acid sequence of the protein.

3. A DNA encoding a protein with insecticidal activity against an insect selected from the group consisting of *Spodoptera exigua*, *Spodoptera littoralis*, *Spodoptera frugiperda*, *Agrotis ipsilon*, *Mamestra brassica*, *Heliothis virescens*, *Ostrinia nubilalis*, and *Plutella xylostella*, wherein said DNA comprises the nucleotide sequence of SEQ ID NO:3 from nucleotide position 1 to nucleotide position 1145 or a degenerate DNA sequence thereof, wherein one or more amino acid codons have been replaced with others without changing the amino acid sequence of the protein.

4. A protein encoded by the DNA of any one of claims 1 to 3.